REMARKS

The Examiner's Office Action of February 11, 2003 has been received and its contents reviewed. The Examiner is thanked for the review and consideration of the present application.

By the above actions, claim 1 has been amended. Accordingly, claims 1, and 4-5 are pending for consideration, of which claim 1 is independent. In view of these actions and the following remarks, reconsideration of this application is now requested.

Referring now to the detailed Office Action, claims 1, and 4-5 stand rejected under 35 U.S.C. §103(a) as unpatentable over Razouk (U.S. Patent No. 5,581,110A) in view of Schwalke (U.S. Patent No. 5,416,041A).

As amended, claim 1 recites the step of forming the element isolation groove which includes another step of forming a plurality of element isolation grooves with respect to one element formation region of the semiconductor layer. Accordingly, no element or device is formed in a non-element formation region interposed between the plurality of element isolation grooves. These features can be found at least in, e.g., Fig. 13 and in page 24, line 24 thru page 25, on line 8 of the specification.

To illustrate the difference between Applicants' claimed invention and the cited prior art references, Applicants have prepared the attached Figure X illustrating the presently claimed invention and Figure Y illustrating the disclosed invention of Razouk and Schwalke.

As can be seen from the attached Figs. X and Y, Razouk and Schwalke fail to teach or suggest "forming a plurality of element isolation grooves with respect to one element formation region of the semiconductor layer." In other words, Razouk and Schwalke fail to disclose that the non-element formation region is interposed between the plurality of element isolation grooves (see attached Fig. Y). Since, according to the present invention, the non-element formation region is interposed between the plurality of element isolation grooves, the structure of the present invention is different from that of Razouk and Schwalke.

According to the present invention, in order to reduce the stress generated in the device, an insulating film (for example, a SiO_2 film) is deposited in the element isolation grooves, i.e., trench, using a vapor deposition method (for example, CVD). Further, according to the present invention, since the non-element formation region is interposed between the plurality of element isolation grooves, the effect of further suppressing the stress generated in the element formation region during manufacturing process can be achieved. This is because the stress

generated due to the trench is easier to occur in the small non-element formation region than the large element formation region.

Moreover, with regard to down sizing, the non-element formation region in the present invention is smaller than the element formation region, and the non-element region is a region having the smallest possible dimension in a device design.

Further, according to the present invention, since a plurality of element isolation grooves is formed with respect to one element formation region of the semiconductor layer, the effect of increasing the breakdown voltage of the device to pressure can be achieved.

Moreover, even if one of the element isolations is damaged, there is another element isolation, and thus damage to the element formation region can be prevented in the presently claimed invention.

On the other hand, as Razouk and Schwalke fail to disclose "forming a plurality of element isolation grooves with respect to one element formation region of the semiconductor layer, and as Razouk and Schwalke disclose providing only one element isolation grooves with respect to one element formation region, if the element isolation groove were damaged, the element formation region of Razouk and Schwalke would also be damaged.

In view of the amendment and argument set forth above, Applicants respectfully request reconsideration and withdrawal of all pending rejections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise which could be eliminated through discussions with Applicants' representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,

Donald R. Studebaker
Registration No. 32,815

NIXON PEABODY LLP
8180 Greensboro Drive, Suite 800
McLean, VA 22102
(703) 770-9300

ATTACHMENT

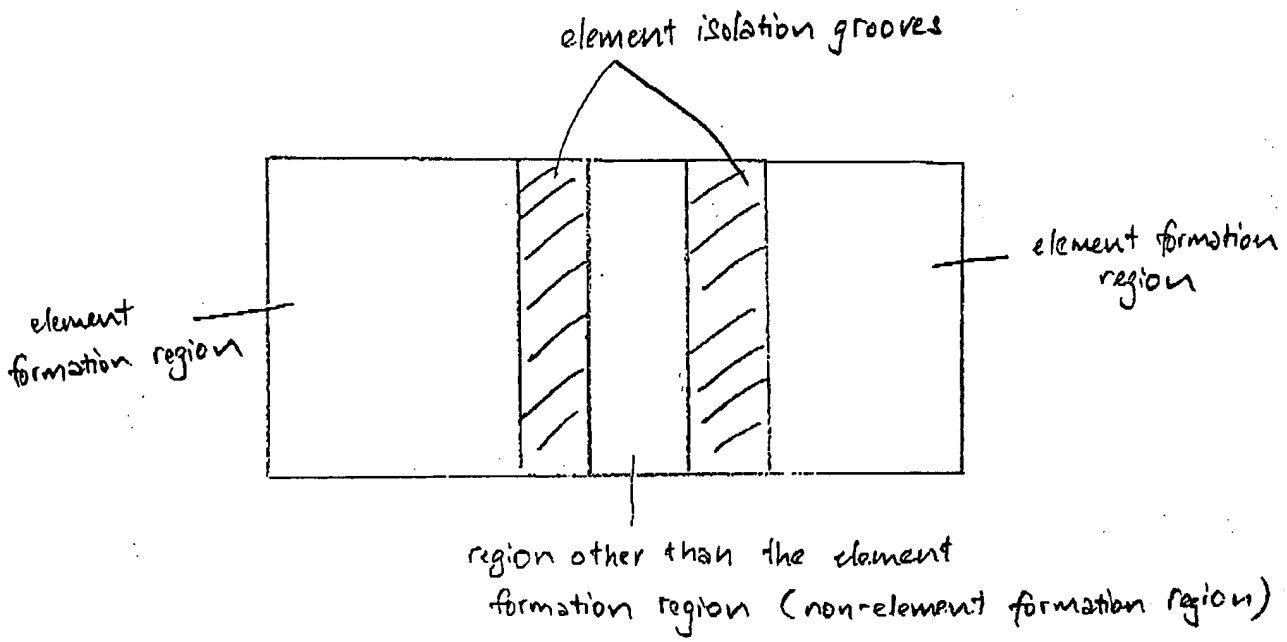

Fig. X (present invention)

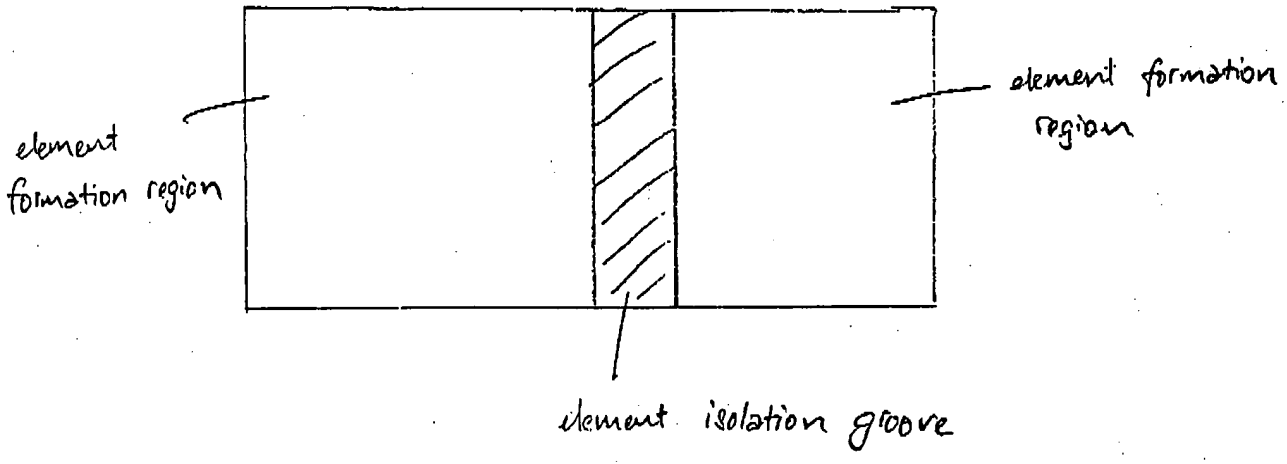

Fig. Y (Schwalke, Razouk)